

Arthur-Jean Williams
Chief, Environmental Field Branch
Office of Pesticide Programs
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, 7506-C
Washington, D.C. 20460

March 2, 2004

Dear Ms. Williams:

This letter responds to the U.S. Environmental Protection Agency's (EPA) letter dated December 29, 2002 requesting initiation of formal section 7 consultation under the Endangered Species Act (ESA). The request addresses 26 Evolutionarily Significant Units (ESUs) of Pacific salmon and steelhead that have been listed under the ESA and one active ingredient diazinon which is currently registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The 26 salmonid ESUs include: Southern California steelhead, South Central California steelhead, Central California coast steelhead, California Central Valley steelhead, Northern California steelhead, Upper Columbia River steelhead, Snake River steelhead, Upper Willamette River steelhead, Lower Columbia River steelhead, Middle Columbia River steelhead (Oncorhynchus mykiss); Sacramento River winter-run chinook, Snake River fall-run chinook, Snake River spring/summer-run chinook, Central Valley spring-run chinook, California Coastal chinook, Puget Sound chinook, Lower Columbia River chinook, Upper Willamette River chinook, Upper Columbia River spring-run chinook (O. tshawytscha); Central California coast coho, Southern Oregon/Northern California coast coho, Oregon coast coho (O. kisutch); Hood Canal summerrun chum, Columbia River chum (O. keta); Ozette Lake sockeye, and Snake River sockeye (O. nerka).

NOAA Fisheries is lacking specific information about the action, without which consultation can not proceed. NOAA Fisheries has reviewed the initiation package including the documents entitled Diazinon Analysis of Risks to Endangered and Threatened Salmon and Steelhead (November 29, 2002), Interim Registration Eligibility Decision (IRED) for Diazinon (Case No. 0238) July 31, 2002, and Environmental Risk Assessment for Diazinon (undated). NOAA Fisheries has also reviewed the approved labels for Diazinon 50W, Diazol 50W, Diazinon 500AG, Diazinon 4E (OR, ID and WA), Diazinon G-14, Diazinon 14G, and Diazinon AG 500. EPA's transmittal letter has respectfully requested initiation of section 7 consultation on the active ingredient diazinon which is currently registered for a large number of crops that may be grown within the range of listed salmon and steelhead, however, in order to move forward with

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the consultation additional information about the action is necessary. This letter will identify the information needs, their relevance to the consultation process, the assumptions that we will have to make if we lack the information requested, and how we will proceed. NOAA Fisheries would like EPA to validate these assumptions because, if they prove to be incorrect, EPA may need to reinitiate consultation. Additionally, we believe that there should be a continuous dialogue between our agencies involving the exchange of information and assistance as part of the formal consultation. These issues and assumptions pertain solely to the description of the action. On completion/validation of the description of the action, NOAA Fisheries will provide a draft description for EPA's review and comment.

Information needs/outstanding questions

- 1. Will there be any applicants involved in the consultation? If so, what are the names? Assumption: The chemical registrants will be involved in the consultation. They will include those listed on the diazinon labels provided in the initiation package. EPA reviews data and labels submitted by chemical registrants and conducts human health and ecological risk assessments based on those data and labels. In addition, EPA conducts voluntary and mandatory data call-ins from pesticide registrants. The registrants may have data beyond that employed in the risk assessment. Currently the chemical registrants are unnamed. The ESA regulation states that the prospective applicant should be involved throughout the consultation process (§ 402.11).
- 2. What is the purpose of the action? Assumption: The purpose of the registration action is to allow the use of the formulated products for both agricultural commodities, homes and gardens. This purpose statement was taken from the EPA transmittal letter, however, there was no additional detail in the initiation package. (WE MAY NOT NEED THIS QUESTION. HOWEVER, I CAN'T HELP FEELING THAT WE NEED EPA TO PROVIDE MORE DETAIL HERE. RF)
- 3. What is the statutory authority for the action? Will the consultation action include actions beyond the FIFRA section 3 registrations, such section (4) reregistrations, section 24(c)) registrations, section 18 registrations? Assumption: The statutory authority for the action will be section 3 (Registration of pesticides), section 4 (Reregistration of registered pesticides), and section 24 (c))) (Authority of states) of FIFRA. It will not include actions under section 18 (Exemption of Federal and State agencies). In order to thoroughly analyze the effects of the action, the entire action must be described. The IRED and labels reference sections 3 and 24 (c))) approvals under FIFRA relative to risk assessment and approval. However, section 4 of FIFRA addresses EPA's reregistration of pesticides that were first registered prior to November 1, 1985. It is understood that diazinon was first registered for use in the U.S. in 1956. As such, subsequent registrations would fall under section 4. Given that EPA has statutory authority to allow the use of diazinon under all of the above-listed sections of FIFRA, and that use does occur as a result of those sections, NOAA Fisheries must include diazinon approval under those sections in the consultation. Section 18 of FIFRA addresses the exemption of use of a pesticide

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under emergency conditions as declared by the Secretary of Agriculture and the Governor of any State. Given that the definition of emergencies under FIFRA extends far beyond that of the ESA (§ 402.05(a) ...situations involving acts of God, disasters, casualties, national defense or security emergencies, etc), use of diazinon under section 18 of FIFRA will not be covered in this consultation.

4. What are interrelated and interdependent actions?

A. Will the consultation action include the uses of diazinon in addition to the action of reregistration? Assumption: The action will be defined as the re-registration if diazinon, and the uses will be defined as both interrelated and interdependent actions. In other words, the use of diazinon depends on the re-registration for legal justification, and its use has no independent utility apart from the re-registration.

B. What are the estimated diazinon use patterns, timing, formulations, application methods, number of application times per site, application rates, locations and crop types in Oregon, Washington, Idaho, and California for both dormant season use, infestation abatement, and soil application? Assumption: (we will have to develop a strategy of obtaining this information from the individual states. Maria, your work may help here.) This information is necessary to help define the action area, and conduct the analysis of effects. This information could help to effectively reduce the size of the action area from the entire 26 ESUs. Without this information, NOAA Fisheries will have to assume that exposure is occurring across the entirety of each of the 26 ESUs, affecting the ecosystems and all life history stages of all listed salmonids.

5. What elements of the action are relevant to the analysis of effects?

A. Will the action under consultation include diazinon formulations in addition to the active ingredient? Assumption: The action will be defined as including diazinon formulations in addition to the active ingredient. The ESA statute requires that the Federal agency requesting consultation must insure that any action that it is carrying out does not jeopardize listed species or adversely modify critical habitat. According to the IRED, there are numerous diazinon formulation types (see above) that are registered. The formulation can contain various chemical components. It is not known whether different formulations cause different ecological responses. NOAA Fisheries must assume that the registration of the formulations are part of the action, and as such, must be analyzed.

B. Will the action under consultation include the components of the diazinon formulations, such as inert ingredients, in addition to the active ingredient? Assumption: The action will be defined as including inert ingredients in addition to the active ingredient. The active ingredient diazinon does not get used alone. According to the labels provided in EPA's consultation initiation package, diazinon is combined with inert

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ingredients ranging from 50%-86% of the formulation. According to the best scientific and commercial data available, some inert ingredients can adversely affect listed salmon and their habitat.

- C. Given the confidential nature of the inert ingredients, how will they be considered during consultation? Assumption: All inert ingredients will be evaluated as if they fell into EPA's highest inert toxicity category. At this time, the formulation labels only identify "inert" ingredients and this information is protected as confidential business information. However, the ESA statute requires that the Federal agency requesting consultation must insure that any action that it is carrying out does not jeopardize listed species or adversely modify critical habitat. Unless we learn differently, NOAA Fisheries must proceed under a "worst case" scenario and assume that those inert ingredients added to the formulations pose the greatest risk to listed species and critical habitat.
- D. Will the action under consultation include tank mixes, adjuvants and surfactants in addition to the active ingredient? Assumption: The action will be defined as including tank mixes, adjuvants and surfactants in addition to the active ingredient. The ESA statute requires that the Federal agency requesting consultation must insure that any action that it is carrying out does not jeopardize listed species or adversely modify critical habitat. According to the labels provided in EPA's consultation initiation package diazinon is mixed in tank mixes with oil or other unidentified tank mix materials which can be added at the discretion of the applicator. In addition, adjuvants and surfactants are included to improve the efficacy of application. According to the best scientific and commercial data available, some tank mix components, adjuvants and surfactants can adversely affect listed salmon and their habitat. NOAA Fisheries must assume that include tank mixes, adjuvants and surfactants are part of the action, and as such, must be analyzed.
- 6. Will the consultation action include consideration of the degradates and metabolites of diazinon active ingredient and formulations? Assumption: The action will be defined as including degradates and metabolites of the active ingredient and formulation. The ESA statute requires that the Federal agency requesting consultation must insure that any action that it is carrying out does not jeopardize listed species or adversely modify critical habitat, including interrelated and interdependent actions. Diazoxon is a degradate of diazinon which has been found at levels approximately 2.5% of diazinon in streams and rivers in CA. The oxon compound has been shown to be substantially more toxic than its parent compound. In addition, the primary degradate, oxypyrimidine has shown to be more stable that the parent compound. NOAA Fisheries must assume that degradates and metabolites are interrelated to the larger action, and as such, must be analyzed.

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- 7. Does the scope of the consultation include those currently registered uses, reregistered uses, cancelled or phased out uses, some or all of the above? Assumption: The scope of the consultation will include the current registered uses, those uses that are proposed to be reregistered, and those uses that are proposed to be cancelled or phased out. The ESA statute requires that the Federal agency requesting consultation must insure that any action that it is carrying out does not jeopardize listed species or adversely modify critical habitat. EPA has never consulted with NMFS to insure that the registration/reregistration of diazinon is not likely to jeopardize the continued existence of any listed salmonid or result in destruction or adverse modification of salmonid designated critical habitat. However, the product has been on the market since 1956. It's past use will represented as part of the environmental baseline of the action area. It appears that reregistration has already occurred. Hence, diazinon's current and future use need to be evaluated against the effects to listed species and the ecosystem upon which they depend.
- 8. How long will the action be expected to occur?
 - A. What is the duration of re-registration? Assumption: The duration of the re-registration will be 15 years for agricultural uses and 10 years for residential uses. According to FIFRA (section 3(g)(1)(A)) the period for re-evaluation of registrations is every 15 years. The action duration is a critical component to assess effects to populations. In addition, it is necessary to clearly understand the action duration is order to determine the ability of populations to withstand exposures for the that particular time period.
 - B. How does phase out work and how long does it take? Assumption: Phase out will not occur. All residential uses are scheduled for phase-out and cancellation by December 31, 2004. The IRED document identifies a two year time frame as reasonable for implementation of the agricultural mitigation measures. Given that neither residential use phase-outs or cancellations were defined, we assume that the product will remain in the use stream (from storage in urban users' garages and basements) indefinitely. This assumption is the worst case scenario regarding diazinon phase out. This assumption was developed due to the need to quantify phase out as it affects incidental take of listed species and effects to populations and species. Unless we understand the phase out process and estimated time frames, and ideally, can quantify it, NOAA Fisheries will not be able to estimate incidental take, nor model population and species level responses. Hence, we must resort to current use scenarios.
 - C. How does cancellation work and how long does it take? Assumption: Cancellation will not occur. All residential uses are scheduled for phase-out and cancellation by December 31, 2004. The IRED document identifies a two year time frame as reasonable for implementation of the agricultural mitigation measures. Given that neither residential use phase-outs or cancellations were defined, we assume that the product will remain in the use stream (from storage in urban users' garages and basements) indefinitely. This

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assumption is the worst case scenario regarding diazinon cancellation. This assumption was developed due to the need to quantify cancellation as it affects incidental take of listed species and effects to populations and species. Unless we understand the cancellation process and estimated time frames, and ideally, can quantify it, NOAA Fisheries will not be able to estimate incidental take for the consultation. Hence, we must resort to current use scenarios.

- D. How do "strong recommendations" work and how long are they effective? Assumption: Strong recommendations will not be provided. This assumption is the worst case scenario regarding strong recommendations for diazinon use. This assumption was developed due to the need to quantify strong recommendations for diazinon use as it affects incidental take of listed species and effects to populations and species. Unless we understand the recommendation process and enforceability, and ideally, can quantitatively estimate it's results, NOAA Fisheries will not be able to estimate incidental take for the consultation. Hence we must resort to current use scenarios.
- 8. What are proposed conservation measures and how do they relate quantitatively to current use (e.g., application amounts)? Assumptions: The conservation (mitigation) measures other than those cancellations and deletions (a f listed below) described in the IRED will be identified as conservation measures associated with the action (see IRED pp 43-49 for details). The Federal action agency has discretion to identify measures which will minimize effects to the listed species and critical habitat. EPA has determined that the following measures will reduce risks to wildlife:
- a. cancellation of all granular registrations (except for two current section 24(c)) registrations in WA and OR for control of cranberry girdler, and in CA within a 5-year phase out on lettuce),
 - b. cancellation of all seed treatment uses snap beans, lima beans and green peas,
 - c. deletion of aerial application for all uses,
- d. deletion of foliar application on all vegetable crops (exception in CA for leafhopper on honeydew melons and for a 5-year phase out in CA for lettuce),
 - e. cancelled uses
 - section 3: Chinese broccoli, Chinese cabbage, Chinese mustard, Chinese radish, corn, grapes, hops, mushrooms, sugarbeets, walnuts, and watercress (watercress will be phased out over 4 years),
 - secton 24(c))): control of cranberry girdler for grass grown for seed(?) in OR; drenching around residential fruit trees for control of Mediterranean fruit fly in CA
 - f. cancellation of all outdoor residential product registrations by December 31, 2004
 - g. application rate reduction,
 - h. require engineering controls for all uses,
 - i. reduction in the number of applications of diazinon per growing season,

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j. application limitations and labeling on orchard crops - dormant season uses will have label language suggesting that applications should be made every other year unless pest pressures are such that consecutive, annual treatments are necessary,

The conservation (mitigation) measures (g-j) constitute changes in the manner in which use of diazinon formulations occur, versus the proposal to cancel or delete uses. The analysis of effects of the action will incorporate those use modifications as conservation measures proposed to minimize the effects of the action. However, unless additional information on how the conservation (mitigation) measures modify application rates is provided by EPA, NOAA Fisheries will have to assume that such rates will not be modified.

To conclude, NOAA Fisheries is lacking specific information about the action, without which consultation can not proceed. In order to move forward with the consultation, we have made the assumptions referenced above. As described above, upon completion/validation of the description of the action, NOAA Fisheries will provide a draft action description for EPA's review and comment. Once NOAA Fisheries has a clear understanding about the specifics of the action, we will contact EPA regarding the remaining outstanding information necessary to complete the consultation.

If EPA chooses to provide clarification of the action/validation of the assumptions, or if there are any questions about this letter or the consultation process, please feel free to contact

Sincerely,

Jim Lecky (?) Laurie Allen (?) Title

cc: Maria Boroja Rachel Friedman

